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ABSTRACT

The series of four papers document the growth in conceptual thinking of a new discipline designed to teach global awareness. The first paper, The Case for Developmentalogy, argues for the establishment of a fully recognized and accredited discipline in the study of global development, with relevant, general courses offered at the elementary, secondary, and college levels. This new discipline, termed developmentology, will surmount the restrictions and impediments imposed on human understanding by the nation-state concept of world order. The second paper, Developmentology--Phase II, further defines the conceptual basis of developmentology emphasizing the interdisciplinary nature of its study. The third paper, Developmentology: The Study of Global Systems and Human Development, examines the expressed suggestions and criticisms of scholars and educators who have reviewed the concept and the practical problems of developing the new discipline. The fourth paper, Developmentology: Paths Toward Implementation, focuses on the rationale and content for a developmentology discipline and discusses possible interdisciplinary curriculum components and planning strategies. (Author/DE)

# DEVELOPMENTOLOGY

by

Management Institute for National Development

Management Institute for National Development

230 Park Avenue
New York, New York 10017
(212) 889-5847
Cable: Institute, New York

# THE CASE FOR DEVELOPMENTOLOGY

## Introduction

When a new word is coined to describe an educational thrust, some explanation is required in defense of the coinage; otherwise a valid accusation can be made that the new word is just one more example of semantic and linguistic gimmickry, a practice all too common in academia. With all the other ologies in abundance, both traditional and recent, must yet another one be introduced?

Fortunately or unfortunately, society never stands still for long, and as new concepts unfold and new areas of knowledge are developed these concepts and areas form themselves into a corpus of educational concentration. As this corpus matures it becomes increasingly unhappy as the stepchild of other descriptive disciplines, and the search begins for an academic identification. In both the physical and social sciences, course bulletins of leading universities describe a long list of now recognized disciplines which did not exist in the bulletins of a decade or a generation ago. It is considered both timely and necessary to promote the acceptance of a new discipline: Developmentology.

Developmentology may be described as the planetary study of human development in its economic, social, political and cultural dimensions. While its academic roots are found in the traditional humanities, the social and physical sciences and the international affairs programs, there are a number of distinctive qualities peculiar to this yet-to-be-born discipline. Perhaps the most distinctive quality is that it views the planet's population as one, in its desire to develop viable life patterns that can advance individual and collective welfare while diminishing inter-society frictions. It follows, therefore, that the focus is on

human societies rather than on nation-states, on human aspirations rather than on national goals. It recognizes the interdependence of all the planet's societies and seeks ways through which this interdependence can become mutually productive rather than competitively destructive. Hence, Developmentology is neither international nor domestic in geographic identification--it is global.

Developmentology's unitary approach to the planet distinguishes this discipline from the traditional orientation of international affairs studies. These studies are based primarily on the nation-state concept of world order and they concentrate on the development of these political entities, both internally and in the relationships between the states. Interest is centered on differing political and economic systems, the internal changes in those systems and the competition between them. The diplomatic, military and economic fortunes of individual nations and regional groupings of nations form the study concentration, together with the political doctrines and personal ambitions of the governing classes. Wars, rebellions, revolutions, expansion and contraction of power, treaties, alliances and territorial boundaries provide the historical background for current understanding and evaluation of the nation-states.

International affairs programs were created along the lines described in response to the realities of world order, as that order has existed. Developmentology branches off from this base in response to a new reality, that any one nation's or group of nations' development cannot be insulated from the balance of human affairs.

Just as the planet Earth has become recognized as a unitary environment, so the requirements and aspirations of all humanity inhabiting that environment no longer can be met solely through the divided and compartmentalized nation-state structure. The study of world order within the traditional concepts of existing nation-states will continue to be needed. At the same time, it is vitally important to add a planetary approach that transcends national frontiers.

In the following sections of this paper the case for Developmentology will be put forward, both to demonstrate why the discipline should be recognized and to indicate that it is a viable, legitimate educational undertaking.

Historical Perspective

Planetary conceptions are neither indigenous nor traditional to any society's or nation's visualization of itself vis-a-vis the world. Each thinks in terms of internal and external, domestic and foreign, national and international; in short, self and others. Throughout its history the United States has oriented its thinking along bi-linear rather than global dimensions, as have all other national entities. For almost the entirety of this country's two-century existence, Americans have concerned themselves primarily and preponderantly with internal, domestic, national problems.

Such concern is entirely understandable. A vast, wilderness continent had to be turned into a modern nation, and the internal development of the most classically undeveloped land mass in recent history has consumed the energies of an expanding, energetic population. Every aspect of civilization had to be encouraged: agriculture, animal husbandry, building materials, textiles, fuel and power, transportation and communication, centers of commerce and finance, mines and industries, political structures and social services, systems of law, of justice and of protection; and, supportive to all these requirements, education. It demanded people and money and time. But people, money and time could not have succeeded by themselves in building a society. Ideals were needed, and unifying forces, and shared faith in the ultimate worth of the effort.

There remains much to be done, despite two centuries of effort. The United States still is in the midst of development, and the stresses, inequalities, exaggerations and injustices common to all developing societies are evident in present day America.

For the greater part of its history the evolving American society remained isolated from the rest of the world and was not looked upon as a significant force in world affairs. But the world could not wait until America completed its development. In 1939, the United States was not included among the list of great world powers, and its political, economic and military positions were accorded scant attention in the international councils of state. Its standing army was roughly equivalent to that of Cambodia today; some 100,000 poorly trained and ill-equipped troops.

In 1945, just six years later, the United States found itself having become the most awesome power on Earth, with twelve million men under arms, a gigantic productive capacity, invulnerable economic strength, and a monopoly on nuclear weapons; while the great powers of 1939 were shattered from the havoc of World War II.

World history of the past twenty five years very largely reflects the sudden emergence of the United States as a super-power and the inexperienced leadership which the United States has per force assumed in world affairs. It has been a quarter century marked by unbelievable successes, such as the reconstruction of Western Europe, and by dismal failures, such as the intervention in South-east Asia, a quarter century of constant tension and a succession of cri es, some resolved wisely, some unwisely and some simply patched over, to erupt again.

Not only has the United States been handicapped by a lack of expert international experience at the governmental level, it also has had a citizenry whose interests and concerns have been and continue to be almost entirely domestic. The world leader-ship role was neither sought after nor wanted; for nine out of ten Americans the best possible solution would be for the rest of the world to go away, so that Americans can concentrate on developing their own country. Reliance has been placed primarily on military strength to maintain world order, and whenever trouble has flared the common attitude has been, "Go in there, clean it out with whatever it takes, and leave".

The American universities entered the post-war period with the same degree of inexperience in world affairs as did the citizenry and the government. American education has a long tradition of being relevant to the needs of society; and its public schools, land grant colleges and state universities were founded and direc-ted as the educational, supportive arm of the country's internal development.

Slowly at first, and then with accelerating speed, the university communities began to interest themselves in world affairs. The interest started in quite simple ways: an increase in the number of foreign language courses offered, exchanges of professors with foreign universities, strengthening of library collections on international affairs topics, study abroad programs for a modest number of students and the enrollment of foreign students. At the graduate level scholars were encouraged to specialize in international affairs and area studies, principally to serve the need at the government level for more experts, and some of the social science disciplines were particularly stimulated by the global opportunities for research. The traditional graduate schools--law, business, medicine, education--changed only slightly, perhaps adding a course or two such as international accounting to an otherwise domestic syllabus.

The undergraduate syllabus was equally slow to change. While some broadening occurred in the humanities, the preponderance of courses offered in history, literature, political science, economics, philosophy, etc. remained within the mainstream of the European/American tradition. Teachers Colleges continued to prepare their students in the classical manner; thus the public school system continued to be staffed by teachers with little expert knowledge of world affairs. The local school boards and parent-teacher associations found this quite acceptable. The point of schooling was to learn something useful so that a good job could be gotten, and the study of African social systems had nothing to do with getting a good job.

But the seeds of international education had been planted, and during the 1960's they began to sprout. Government programs in foreign economic and technical assistance created a rapidly increasing need for internationally trained and development oriented experts in many disciplines, the volume of student and faculty exchanges accelerated, international clubs were established on campuses and fostered a variety of events, private foundations encouraged expansion of international studies through grants, the Peace Corps sparked student idealism and its massive publicity brought world consciousness into many thousands of American homes, and even high school teachers began to assign papers on Asian history, African geography and Latin American politics.

For a time it appeared that the American educational system was indeed evolving toward a planetary orientation. It was still necessary to search out international course offerings in the college bulletins by hopping from department to department and from discipline to discipline. Entrance examinations did not require anything but the most superficial knowledge on world development problems, thus offering scant incentives to high schools for offering appropriate courses, and the vast majority of college graduates had only brief exposure during their four years with planetary topics. Yet momentum had been set in motion and forecasters in 1965 would have been quite justified in predicting that the momentum would accelerate with each passing year.

## Current Situation

The planet Earth has a human population of 3.6 billion, of which 2.3 billion, or 64% are of working age, or older. The rest are children less than fifteen years old, and they number 1.3 billion. The segment of Earth's population living in the United States

numbers 203 million, 5.6% of the planet's total. Of this population, 60 million are less than fifteen years old, 4.6% of their age group on the planet.

In the next ten years, due to variations in population growth rates coupled with age disparity, the number of Americans relative to Earth's population will decline to 5.3%, its share of young people to 4.4% or less.

It is just this 4.4% that is the business of the American educational system in the coming ten years, for children do grow into adulthood, and as American adults they will per-force be an integral part of planetary development. There no longer is a way by which a shrinking minority can insulate itself from its own planet or depend upon military strength alone to provide such insularity. This generation of American children, now born and being educated, cannot escape world involvement throughout their adult lives.

It remains, then, to decide how they shall be prepared during their educative years. Before that decision is reached, it is well to thoroughly digest the state of global trends.

On Earth, there exist two population groups which, for want of better terminology, can be described as advanced and developing. The terms are hazardous for the inference of the term "advanced" or "developed" suggests a society which has plateaued to an ultimate level of achievement, when in fact it is just these societies which are advancing and developing the most rapidly. The term "developing" suggests momentum and catching up, when in fact the measurable gap between developing societies and advanced societies is becoming ever greater. To cite a few comparative measurements, per capita income of the advanced societies presently has a twelve to one lead over per capita income of developing societies; by the end of this century it is predicted that the gap will have widened to eighteen to one. Hence, the advanced segment is developing more rapidly than the developing segment. During the most recent decade, the former's production per capita increased 90% more rapidly than the latter's.

The two segments are not equal in population numbers. The advanced segment, including Americans, accounts for only a third of Earth's population; the developing segment accounts for two thirds. Nor will this ratio remain static, for the population growth rate is roughly twice as rapid in the latter as in the former. Therefore, by this century's end, the advanced segment

will account for but a quarter of Earth's population, and less than 5% will be Americans.

This shrinking minority now controls and may be expected to continue to control about 85% of the planet's productive wealth; the growing majority is left with 15%.

Statistics such as these are not included either to confuse or to alarm, but simply to draw factual base-lines. A few more base-lines are needed when education for young Americans is to be evaluated. The best expressed summary paragraph is to be found in the Introduction of the United Nations Commission for Social Development, published in January, 1970:

> "It is a tragic fact that at the end of the 1960's there are more sick, more undernourished, and more uneducated children in the world than there were ten years ago. Unless the international community is prepared to give vastly greater support, the next ten years will find the number of neglected children increased by millions--despite all the efforts of developing countries, including endeavours by some to curb population growth. Every half minute, 100 children are born in developing countries. Twenty of them will die within the year. Of the 80 who survive, 60 will have no access to modern medical care during their childhood. An equal number will suffer from malnutrition during the crucial weaning and toddler age--with the possibility of irreversible physical and mental damage; and during this period their chance of dying will be 20 to 40 times higher than if they lived in Europe or North America. Of those who live to school age, only a little more than half will ever set foot in a classroom, and less than 4 out of 10 of those who do enter will complete the elementary grades. This situation is especially disturbing when we realize that three quarters of all the world's children under fifteen years of age--nearly a billion children--live in developing countries."

Given these planetary realities and the absolute certainty that American children will have to confront them throughout their adult lives, one might reasonably conclude that, even though starting late and in considerable disarray, the country's educational content now would be focused on world development problems with urgency.

Quite the contrary happens to be true. The prophesy of 1965 that the momentum then gained would accelerate has proved to

have been entirely wrong. Development studies at American universities have suffered a sharp reversal in support and popularity. The Peace Corps which once was flooded with applicants now has trouble in meeting its quotas. The private foundations have reduced by very substantial proportions their support for international programs. Interdisciplinary faculties in development studies which were assembled laboriously are now dissipating. Direct governmental assistance to developing countries has been reduced sharply, and indirect governmental support through grants, contracts and scholarships with universities has been cut or terminated. Religious and secular voluntary agencies, formed to assist the hungry, the sick and the ignorant in foreign lands, find their sources of funds drying up unless they reorient their programs to domestic endeavors. Career opportunities for development specialists are declining, and staff reductions are commonplace.

In short, the American mood in 1970 is to pretend that the world has indeed gone away as has long been wished, so that henceforth the American citizenry need concern itself only with internal, domestic development. It is quite probable that the country's seemingly endless difficulty in finding a viable resolution to its Southeast Asia involvement has contributed to this mood, as have the glaringly apparent inequities within American society and general discouragement with the inadequacies and failures of foreign assistance programs. These and other reasons have combined to produce a severe depression in development studies which focus on global problems.

The problems, however, do not go away; they just become worse.

## Future Direction

The space exploration programs of the United States and the Soviet Union have not produced a shred of evidence that human life is sustainable anywhere in the universe, other than on the planet Earth. The three astronauts whose spacecraft became crippled had only one chance for survival--a return to Earth--and their plight commanded world attention. There are no options, no other places to run away to, no alternatives but to co-habit this planet as one human society. There is only one land mass upon which all human beings must live and from which the necessities of life must be derived, and one ocean upon which the ecological balance of the land mass is dependent. There is one sunlight, one atmosphere, one rain cycle upon which all life depends. There is one primary purpose to life and that is to

sustain life. In philosophical terms there may be other purposes to life, or no purpose at all, but in practical terms Earth's population has inherited a place to live from those who lived before and must pass it on to those who will live after, or else terminate the only habitable environment for human beings.

If this is a factual, objective description of the planet upon which young Americans will live their adult lives, then it would seem logical to suppose that the education given to young Americans would prepare them for a planetary existence. It does not. It provides them with a conception of civilization and a viable existence only in relation to a shielded and protected 5% of human society, or to a lesser extent, within an almost equally shielded and protected 25-30% of roughly comparable societies. In both cases the protective shield is military power supported by economic power. So long as this protective shield, built primarily in response to Soviet power but equally applicable to global threat, remains impregnable and supportable, a minority of humanity presumably can continue to enjoy comparative luxury.

But at what cost? The required annual budget for the American military shield is now $80 billion; for the advanced segment of the world the price is even higher. Over the past two decades this cost has increased by an average annual increment of 10%, an incremental increase which is more than double the economic growth capabilities of the advanced societies that must support the expenditure. It would seem logical to suppose that at some point the economic burden of the military shield will become self-defeating. It might also seem logical to think that the advanced societies may find it to their greater self-interest to divert such expenditures in part toward planetary development, rather than to the maintenance of force.

Whether through enlightened self-interest or through unwillingness to meet the mounting cost, the protective shield cannot be expected to afford the same degree of insulation for Americans as has been true in recent years. It follows that if American education is to retain its tradition of relevance, students must be taught in world terms rather than in national terms. The accomplishment of an educational revision of such magnitude will require something more than increased support for international studies, although the pioneering efforts of universities in international affairs programs and development studies can be most valuable to the restructuring of school and college curricula.

There are many reasons, in addition to those of a general nature which have been mentioned, why world development studies have

faltered rather than matured; and it is well to review some of these, not to cast criticism, but to learn from experience.

While they proliferated to some degree throughout the university system, development studies were concentrated largely at the graduate level, where a comparatively small number of masters and doctoral candidates worked closely with research-oriented faculty specialists. If this intensive, elevated concentration had acted as a fountain-head for the balance of education, one could not fault it; but instead it tended to become club-like and ingrown, with those of comparable intellectual attainment speaking only to each other.

The financial support for such studies failed to become an integral part of university budgets. More commonly the programs received modest initial encouragement from university treasuries together with such supportive services as office space and library additions, upon the understanding that the majority of financial commitment would be met by private foundation grants and governmental subsidies. In comparison with such traditional departments as history, the costs of which are met entirely out of general university revenues, world development studies were operationally sanctioned but fiscally unsanctioned. Thus, when outside support dwindled there was little staying power.

The subject never gained recognition in its own right as a legitimate academic discipline. Experts in the field considered their disciplines to be law, political science, economics, sociology, philosophy, agronomy and other, similarly recognized, identifiable specialties. The study of global human development was considered to be a conglomeration of several individual disciplines, rather than a discipline in its own right.

The traditional confusion between human societies on the one hand and nation-states on the other pervaded development studies, with the latter approach dominating the former. As described in the introduction, international or area studies meant studies of territorially demarkated political governments. Not much attention was paid to the populations involved except in statistical nose-counts; the emphasis was on the governing few rather than on the governed many. The very relevance to society as a whole which was the hallmark of American education in relation to domestic needs only seldom carried into the international arena.

These several weaknesses combined to prevent development studies from becoming established as a viable, germane, legitimate, and integral segment of academic life at universities, and thus they

did not permeate into the school systems which stream students toward college admissions requirements.

Despite these birth pains and others which could be cited, much experience has been acquired, much interest has been stimulated and much opportunity now exists to restructure the early efforts and to consolidate them into a fully recognized and accredited academic discipline. If this discipline, herein named Developmentology, is established and nurtured within the policy and fiscal mainstream of education, America will have taken a giant step forward in recognizing its interdependence with the balance of the world.

## Conclusion

In the introductory section of this paper, Developmentology was defined as the planetary study of human development in its economic, social, political and cultural dimensions, with a focus toward societies and the aspirations of all Earth's populations, rather than on the power struggles of nation-states.

While the discipline should be designed to spread throughout the educational age spectrum, from primary school through graduate school and into adult education, the immediate concentration of Developmentology should be at the undergraduate university level. It is this level, in the American educational system as it has evolved, which acts as the determinant in legitimatizing disciplines through course credit recognition both for admission and for graduation. It is here that departments are established, professional associations formed, examinations developed and encouragement to high school curricula additions given.

At the same time, attention should be given to elements of Developmentology at the middle school years of grades six through nine. Children at these age levels are advanced enough to handle reading assignments, classroom projects and report preparation, and they are not yet under the intense pressures of college preparatory courses. Certainly at these grade levels the basic facts about Earth's populations and the severity of imbalances can be mastered, through such courses as history and social studies as well as through independent reading and current affairs.

While required texts and other teaching materials will need strengthening, advantage can be taken of British leadership in this field. Through the sustained efforts during the past decade of many development-oriented organizations in Great Britain, the school

systems of that country are giving increasing emphasis to an understanding of development topics, and college entrance examinations include an increasing number of questions that can be answered correctly only if the candidates have had development studies in school. Developmentology is not as yet a recognized discipline at British universities, but there is a rapidly growing interest among college students in the area as well as much serious graduate-level concentration. It would appear logical to anticipate an upgrading of this broad interest and activity into a discipline in the relatively near future.

It is hoped that the case for Developmentology has been made in this paper, and made on the basis of practical, rational, viable argument. Admitedly there is an idealistic element intertwined in this case presentation. A subtle mixture of idealism with practicality is not necessarily a fault; it encourages man to reach for stars while keeping his feet on the ground.

Wilmer H. Kingsford
President

June, 1970

## APPENDIX

This report is one of a series prepared by the Management Institute for National Development on problems of overseas aid effectiveness and ways by which such efforts can be strengthened.

The research for this report began as a result of questions concerning the adequacy of donor country education on development problems, which questions were raised at a conference on Overseas Aid Effectiveness organized by the Institute and held at Colby Junior College in September, 1969.

The topic was explored during subsequent trips to West Germany, France and Great Britain, and in consultation with international affairs specialists at universities and educational institutes in the United States. Research included extensive literature review and analysis of university course offerings.

Additional copies of this and previous reports are available for distribution at no charge.

The Institute here records its deep appreciation for the continued support of The Homeland Foundation which has made possible this work.

Management Institute for National Development

230 Park Avenue
New York, New York 10017
(212) 889-5847
Cable: Institute, New York

# DEVELOPMENTOLOGY - PHASE II

## Introduction

In June, 1970, an Institute paper entitled "The Case for Developmentology" was issued. It argued in favor of the establishment of a fully recognized and accredited discipline in the study of global development, with relevant, general courses offered at the undergraduate college and school levels, in addition to specialized, concentrated study at the graduate level of universities. The paper maintained that in addition to the traditional nation-state structure of world order, there exists a newly recognized reality common to all Earth's societies and transcending political boundaries: the reality of global development in human terms. It is essential, argued this paper, that young Americans now passing through their formal educative years be taught this new reality, for throughout their adult lives they will be confronted with planetary development.

The paper recognized the efforts made during the past two decades to enlarge the nation's knowledge of international affairs, through graduate studies, exchange programs, area studies and other specialized programs. While commending these efforts, it stated that they were inadequate, first because they reached only a very small percentage of students, and second because they tended to stay within and be restricted by the nation-state concept of world order.

A new discipline is needed, both to broaden planetary knowledge and make such knowledge available throughout the educational system, and to surmount the restrictions and impediments imposed on human understanding and progress by nationalistic concerns; this new discipline was called Developmentology.

This present paper, entitled "Phase II", describes the work of the Institute during the six months subsequent to issuance of "The Case for Developmentology". Phase II work can best be characterized as a period of testing. Initially the original paper was sent to a relatively restricted list of about one hundred friends and acquaintances of the Institute: men and women in many varied professions, of many nationalities, whose respected opinions could be counted upon as being informed, frank and constructive. They were asked whether the concepts described in the paper were valid, timely and viable. To the first two questions, the response was very favorable and positive; to the third there were many reservations as to whether, by what means, by whom, how and to whom a global comprehension of human development could be taught.

The Institute then circulated the paper to professional educators, in order to more directly test the educational viability of a development discipline. The circulation was supplemented with as many personal interviews as possible. Again the responses to the concepts were almost uniformly favorable, but the concerns expressed by the first group on viability were confirmed by the second. Many detailed and specific problems have been raised, and the most frequently cited are discussed herein.

Supportive to these evaluations, the Institute has collected and studied a large sampling of programs and course offerings that, if not specific to global development studies, are partial approaches and would almost certainly form the bases and ingredients of an embryonic discipline. This work also is discussed, and information on such courses and programs is included.

## Commentary on Concepts

The coined word, "Developmentology", is disliked by virtually all respondents. Some express their own reactions quite explicitly; others, more kindly, suggest that not every one may find the word acceptable. Curiously, very few alternates are suggested (development science or development studies are the more common) and one should not rule out the possibility that the very dissonance of the word matches the requirement of disciplinary challenge. Sciences and studies are familiar, indeed comfortably acceptable, terms, but there is little comfortable or familiar in global concern and its rational understanding. While it would be foolish to defend the word for the word's sake, there remains a need to identify a distinct disciplinary field, unweildy as its identification may appear.

There is concern that, while theoretically valid and timely, global thinking cannot be mastered; it is not a thought process through

which humans can function, it is too vast and impersonal. While intellectually men realize that they live on one planet and are, to an increasing degree, interdependent upon one another's welfare, there is little if any emotional attachment to the planet Earth or to the human specie. This argument has considerable validity, but it is important to emphasize that global concepts are advocated as an addition to, rather than as a substitution for, more localized affiliations. The home, neighborhood, community, religion, ethnic group and state will continue to dominate man's sense of belonging; until recently he needed no further allegiance. The core argument of the Developmentology paper is that man now must extend his chain of allegiances to encompass his planet, difficult as it may well be for him to do so. In good part, the difficulty is traceable to the educational orientation which adults received when they were children: each generation is taught that its own mother nation and her political possessions are the limits of belonging and that the rest of the planet is foreign, usually inferior and frequently hostile.

The world as described to children from their earliest years on invariably forms two pieces: the smaller of the two is populated by their own kind, an extension of their home, with the concern and security provided by the home applied to their particular nation or society; the larger piece is populated by other kinds of people who practice strange customs, speak in strange tongues, worship strange gods and either have directly threatened the child's home in the past or might well do so in the future. Thus taught, the world is not a very friendly place, and not surprisingly adults have extreme difficulty in attempting to alter these childhood-induced world concepts. But there is no reason to suppose that another generation educated in global terms could not feel intellectually and even emotionally at home with their planet and their specie. The problem of how a generation with one mind-set can teach another generation to have a different mind-set is a very real one, but the transition must be attempted if today's children are to cope with their world as tomorrow's adults.

A third conceptual concern questions the limits of knowledge within which Developmentology is to be focused; the reverse of this concern is an oft-repeated suggestion that the discipline requires a clearer and more precise definition. Possibly the Institute staff has had more difficulty with this question than with any other, and the problem of limitation and definition is by no means resolved. In one sense, man, his societies and his planet do indeed encompass all knowledge, as even the least significant human occurrences spread as sound waves to other occurrences. Surely, though, there exist degrees between the nearly trivial and the nearly critical of such occurrences, as there are when considering the limitations

and definitions of other, fully recognized disciplines. Examples of these other disciplines follow (in each case noting the most general and the most definitive definition offered by Webster's Dictionaries):

- Philosophy:
  1) The love of wisdom; in actual usage the science which investigates the most general facts and principles of reality and of human nature and conduct.

  2) The study of integrated and consistent personal attitudes toward life and reality.

- Theology:
  1) The knowledge of God and the supernatural, methodically formulated.

  2) The critical, historical and psychological study of religious ideas.

- Psychology:
  1) The science which treats the mind in any of its aspects; the phenomena of consciousness and behavior.

  2) The traits, feelings, actions and attributes of the mind.

- History:
  1) The branch of knowledge that records and explains past events as steps in human progress, and the character and significance of these events.

  2) A systematic account of events affecting a nation, institution, science or art, usually connected with a philosophic explanation of their causes.

- Economics:
  1) The science that investigates the conditions and laws affecting the material means of satisfying human desires.

  2) The application of these laws to the problems of government in managing the production, distribution and consumption of wealth.

- Sociology (Social Science):
  1) The science of the origin and evolution of society or of the forms, institutions and functions of human groups.

  2) The science that deals with human society as family, state or race and with man as a member of an organized community. (Note: the word "sociologie" was coined by Comte in 1838; Herbert Spencer gave content to this discipline).

- Political Science (Politics):
  1) The conscious, definite purpose of society to establish authority through government and to determine its functions through law.

  2) That branch of social sciences dealing with the organization and government of states.

  3) It does not go back to the origins of social institutions (sociology) nor to the causes of human actions (psychology) nor with social phenomena connected with materials (economics) nor with individual human beings as causative factors (history), but it is very closely related to all of these branches of knowledge. (Note: this series of negative definitions was included in the 1935, Second Edition of Webster's New International Dictionary, a time when the term "political science" was of relatively recent coinage and clearly less difficult to define as to what it was not than what it was).

Each of these six defined disciplines could be considered to be central to human existence and experience: wisdom, God, the mind, the past, society etc. Each also can be defined more explicitly, but even so, certainly there is overlapping between and among them; an extended listing of other disciplines would repeat the same pattern of a broad field of knowledge and a more restrictive identification.

Thus it is with Developmentology. It has been called future history by some, global sociology by others, catholic theology, planetary politics, multinational economics, universal philosophy and the psychology of the human race. However associated, there remains a vital gap in the educational process of the United States (and of other nations) because Americans do not think and do not teach in terms of planetary reality, but rather within the confines of their own traditional geographic, political and cultural identification and within the strictures of the senior disciplines.

With considerable pause and without any pride in words, the definition model of a discipline is offered for Developmentology, both in more broad and more specific alternates:

- Developmentology
  1) The study of the planet Earth's human population as its existence, growth and well-being relate to a viable continuation of its own specie.

  2) More specifically, the rational development of man, individually and collectively, as a unity of physical, political, economic, social, cultural, and spiritual parts, within the constrictions of his habitat on Earth.

A final question, which bridges conceptual and viability matters, relates to whether the educational approach should be a broad, general one, or a selective, specialized one. To this question, the Institute's response is very direct: the unmet need is in the broad, general category. Specialists also are needed, but it is fair to state that universities have been doing and are doing a commendable job in offering courses and conducting research at advanced levels of concentration. This statement should not be interpreted as self-satisfied--indeed the specialists in development studies are the first to concede that their work and knowledge do not begin to approach perfection. Nevertheless, for the very small numbers of students and scholars who wish to pursue aspects of global development, through economics, history, political science, sociology or other disciplines, there are graduate and doctoral programs open to them, as well as some interdisciplinary programs.

While such efforts should be encouraged and given greater support, they have not and will not achieve a significant educational impact among the student population as a whole. The objective of Developmentology is not primarily to train more specialists, but to educate young Americans--all young Americans--about the realities of the planet which they have inherited and with which they will have to live and contend, regardless of their eventual vocation, with emphasis on the appalling inequities existing between segments of the human population.

An analogy to American History courses is pertinent. It has long been judged essential that all young Americans be required to study American History at some time during their school years, not because the country needs millions of future historians, but because responsible citizenship requires an understanding of the nation's development and heritage, as well as a sense of being part of that inheritance. Thus, American History has the highest percentage enrollment of any subject in public high schools--effectively 100% of eleventh grade students. Some few students will indeed become attracted to the subject, concentrate on it at college, specialize at graduate schools, and become American History teachers, writers and scholars themselves, thus perpetuating and nourishing the discipline.

For the identical reasons, all young Americans should be required to study global development, whether or not they wish to specialize in the field, because responsible world citizenship requires an intelligent understanding of and association with the planet and its people. Those who anticipate a career in business will need to know the condition and changes of world production, consumption and trade, which transcend national boundaries at an increasingly

rapid pace. The new leaders of organized labor must know the conditions of labor globally, not just domestically, for the Oriental worker is in direct competition with the American worker in selling his labor. National law is increasingly ineffective as an instrument of social justice, and political bodies cannot rely exclusively on domestic legislation to carry out the will of the governed. Science, medicine and technology interact in a planetary rather than local dimension, as do education, culture and scholarly thought.

The intricacies of world food demand, supply and distribution directly affect the farms of Kansas, and there is very little that the Kansas legislature can do to modify these effects. Thus, in vocation after vocation, planetary development is becoming central to full comprehension of one's chosen life work, as well as one's voice in wise governance. In the face of this, to permit the vast majority of young Americans to pass through their educational years without teaching them more than the most simplistic (and often dated) planetary concepts is to render a disservice of enormous proportion.

Commentary on Viability

There has been raised a lengthy number of practical questions concerning the introduction and establishment of a new discipline in the U.S. educational structure. As one respondent, a university professor, phrased it, "The process by which new disciplines are established is a very mysterious one and I don't think anybody understands it very well"; while another, himself a university president, asked, "How does one go about changing the traditional curricular fix of faculties and school boards?"

The ingredients comprising that which is recognizeable as an academic discipline are many and varied; while interdependent they do not follow a linear process. Following are the principal, critical ingredients.

- Students concentrating on learning an identifiable area of knowledge in such manner that their absorbtion of this knowledge can be measured and tested.
- A structural syllabus of courses, progressing from the most elementary, introductory level to the most advanced.
- Teaching materials designed to support the course requirements.

- Teachers, themselves qualified through their own studies and familiar with the teaching materials and syllabus, to instruct and guide the students in the knowledge area.

- Teacher training, at schools of education and in graduate programs, to provide the certified teachers.

- University programs of research, scholarship and education, together with library support, to develop, expand and support the disciplinary knowledge.

- An accredited, degree granting major in college and course credits in school (thus completing the circle back to students).

The questions, then, are where does one start, where is the entry point of a circle, and if there is no entry point, how does one set a new disciplinary circle in motion? There are several partial answers and while partial answers by definition cannot produce whole results, at least they are viable building blocks. Here are some of the most commonly cited:

- Scholarly research into various aspects of development through the complimentary interest of other disciplines such as those previously mentioned (economics, sociology, political science, history, etc.). During the past two decades a very considerable amount of such research has been conducted, most of it very valid. Some respondents believe that planetary development can only be approached in this manner, for the subject itself is too vast to be understood without a thorough rooting in some other discipline. Thus, they argue that the student interested in development must choose his discipline--economics for example--follow the standard syllabus of that discipline, achieve his advanced degree and only then apply his knowledge to the special economic problems of development. This undoubtedly is the most immediately viable approach, but the weakness is very apparent, for that student will always look at development as fundamentally an economic problem and will seek solutions only, or certainly above all others, in economic terms. Yet planetary development is not fundamentally an economic problem requiring economic solutions (nor a sociological, nor a political, nor a psychological one, etc.); it is a human problem requiring human solutions--it is man in the context of himself, his fellow man, and his environment. Part of that formula indeed is economic, but economics is not in part man; it is man who is in part economic. Thus, in educational terms, the core, or unity or discipline of thought in planetary development should be man, with many specializations, rather than the reverse.

- Interdisciplinary programs at undergraduate, or more commonly, graduate level, bringing together the interests of the several disciplines as they refer to development. Such programs can take the form of research, highly specialized study curricula for very limited numbers of advanced students, elective or even minor course selections for interested and recommended undergraduates together with graduates. This path adheres to the contention of the approach cited above, in considering development, as a subject in itself, too vast to form a discipline, but it recognizes that no single, present discipline can offer the balance required. Experts from the several disciplines, working in concert, should correct the deficiency, and in so doing provide the best of both worlds.

  As with most compromises, this approach has much to offer but leaves much undone. Interdisciplinary programs may not result in a unity of concentration, but rather a conglomeration of dissimilar efforts. The courses of each participating discipline are designed primarily with the structure and balance of each discipline in mind, and it is only fortunate happenstance if the several courses from the several disciplines form a coherent whole. More often, the student is left with a jumble of knowledge-minutiae, which does not make sense for the very understandable reason that the courses were not designed to make sense out of disciplinary context.

  In addition, such programs, being everyone's baby, are apt to become no one's baby. Even with the best of intentions, the demands and interests of the participating scholars inevitably rest with their senior disciplines, with only such time and attention that remains left to the interdisciplinary committee. If such a committee acted in an advisory capacity to a new discipline, it would be of great value, but as an operating entity in itself it is miscast.

- A third alternate involves para-educational programs. These would encompass such things as extra-curricular courses, summer workshops, periodic lectures or seminars, sensitivity training experiences, or, of least significance, guided tours of poorer societies. Such types of activities also are miscast, for they have educational value only when supportive to a central concentration of study. One can attend conferences, workshops and lectures by the hundred and travel the world over, but unless the knowledge gained is marshalled in an orderly, rational manner it will have little permanent value. Moreover, such extra-curricular activities tend to become make-work at best and sham education at worst.

The Disciplinary Approach

It is fully recognized that the advocacy of a new discipline is not a matter to be lightly or frivolously espoused. One advocating such a venture, if acting responsibly, must be aware of the cost in talent, financial means and intellectual effort, resources which can be applied in other ways toward achieving other educational objectives. If the comprehension of global development can be gained through less demanding means, they should be encouraged. The burden of proof does not rest on the critic of a proposed new discipline to defend his criticism, it rests on the advocate, not simply to answer the criticism but to provide an acceptable rationale for his advocacy.

There are three planes of advocacy involved in the promotion of a Developmentology discipline. The first is philosophical. It rests on certain convictions involving the purpose, the meaning, the valuableness, the sanctity of human life--each human life as an individual entity of creation. If each human life is central to the meaning of all human existence, then global human development is essential, and a disciplinary approach would, at least theoretically, seem wise. If each human life is not the essentiality, then one can work, and work rather effectively, with numbers: numbers of housing units, numbers of jobs, numbers of educational years by types of specialization, numbers of doctors per thousand populations, numbers of births and numbers of production units of food and goods, numbers of currencies in per capita purchasing power measurements. It is mathematically possible to achieve per capita, world-wide equivalency through application of such numerical rules, and in one sense such an achievement would be totally fair, but in another sense it would be a totally empty achievement, for the essence of man as human would be lost. One should not by any means depreciate the usefullness of quantitative measurements, but without a philosophy, development would become a quantitative abstraction.

It is not appropriate here to insist on the particulars of human development philosophy; indeed there may be many valid philosophies which concur only in the essential dignity of man--all men who inhabit Earth. However the philosophy is phrased, it provides the raison d'être of Developmentology, in so structuring or restructuring global human existence that all men have an opportunity to live in dignity and realize their potential.

The second plane is vocational in essence. Man lives on a planet not only as one living specie, but as the specie whose daily actions or potential actions directly affect the well-being of the entire

specie population. That has not always been evident. In fact, until recent times the activities of one human colony appeared to have virtually no connection to most other colonies, just as a colony of turtles in Florida, whatever its fate, has no evident connection with a colony of turtles in Ceylon. Human societies could and did pursue their several fates in isolation, one from another, but no longer can they do so. Their sheer numbers, their intellectual closeness through modern communication, their physical closeness through modern transportation, their material closeness through systems of commerce, their environmental closeness through use and abuse of Earth's limited resources and their destructive closeness through modern weaponry combine to bring the entire human specie into one, interdependent colony.

By any measurement this colony is in disarray, and is in increasing disarray with each passing year. It is a colony wherein a shrinking minority accrue to themselves an increasing share of available possessions, while an increasing majority have less of life-essentials, not to mention luxuries. The growing, have-not majority now number two-thirds of the human colony population; that two-thirds have only one-seventh of Earth's productive wealth as that wealth is measured in tangible terms: food, clothing, housing, products, services and all the other specifics that compose tables of wealth.

There is, therefore, a job to be done, in order to more equitably develop human potential and distribute productive capacity, and this vocational effort commonly is called development. Large, multinational and national agencies have been created to tackle this job, along with many privately-supported agencies. Billions of dollars annually are transferred from the wealthier to the poorer societies, thousands of individuals are employed to administer and direct this transfer. But, to date, these efforts, large as they seem, are not doing the job. The poor majority grows poorer and larger--for two billion humans life is brutally harsh and short. The active supporters of the involved agencies in development are becoming discouraged and the people whose wealth is being transferred are becoming distrustful. In short, the job is not being done.

When any job is recognized as needed, and when, despite considerable effort, it is not being done, the fault almost invariably lies in lack of ability equivalent to the job requirement, a lack which can be corrected only through improved training and vocational education. Development has been attempted by vocationalists expert in other areas of knowledge, some parts of which find application to the development process. A job of enormous complexity and size

has been assigned to a labor force which has not been educated to understand and carry out the entire job.

The growing of corn or cotton indeed has economic, social and political implications, but it does not follow that if corn or cotton is to be grown, economists, sociologists and political scientists should be employed. A farmer, trained in knowledge of these crop requirements, should be the prime labor force, aided in an advisory capacity by the other affected vocations.

This truism should not be very difficult to understand as applied to global development, and yet, who is employed by development agencies to achieve development--those specifically trained and educated to its requirements? Not at all. Diplomats, bankers, politicians, missionaries, militarists, economists, behavioral scientists, industrialists, anthropologists, ecologists, biologists--just about every type of professional except for the one needed: a man with an educated understanding of the full dimensions of development.

In the past, whenever society required trained manpower to do an important job, educational institutions responded by initiating a disciplinary course of studies designed to provide society with the required capability, and this process has introduced many now recognized disciplines: nuclear science, aeronautical engineering, business administration, criminology, urban affairs are some examples. There exists today an awesome need to stimulate positive developmental processes in nations containing two-thirds of humanity, and the need has not been met adequately by employing those trained in other disciplines for other purposes.

The third plane of Developmentology is the general educational plane. The average citizen, even when afforded that which is described as "a good education", knows pathetically little about his world. In fact the term "his world" means to him a small sector of the true world which he calls home, and if he thinks at all about the outside world, he imagines it to be somewhat analogous in value standards, thought patterns, behavior and aspirations, although different in terrain, weather, wildlife and language. For a long time it did not make much difference what the average citizen thought about other societies because his affairs and theirs almost never crossed. But that era has gone, and it is of vital importance that the citizen is globally well informed, because decisions made through misconceptions can be disastrous. The American involvement in Southeast Asia is perhaps the most obvious example to cite, but there are many other less dramatic yet equally dangerous examples: the application of medical technology to extend life expectancy without concern for the resultant unmanageably high rates of population growth, trade patterns established to serve the industrial consumer

without consideration of the producer's economic welfare, as in the case of many single commodity national economies, and of course the proliferation of nuclear warheads which, if ever used, would virtually destroy planetary life.

Yet, very little is being done in general education to correct this ignorance on the interdependence of societies. The courses with the highest percentage of student enrollment in public high schools, listed by declining order of enrollment, are: United States history, English language, biology, world history, algebra, general science; all other courses have less than 50% enrollment. World history should be a bright spot, but the world as conceived in this course commonly starts with the Romans, Greeks and other Mediterranean societies, covers Medieval and Renaissance Europe, the age of the European Empires, the transfer of European culture to North America and other continents and ends with the two World Wars. The institutions of government, the social institutions, the religious thought, literature, art, heroes and villains, inventors and discoverers are taken from this mold, almost to the exclusion of the balance of world history.

Courses are offered in civics, social studies, current affairs and similar subjects which could give a degree of global perspective. However, they too are heavily weighted on the European-American axis and their central concern is neither appreciation of global systems, nor development thought. Thus each year another class graduates with "a good high school education" that has not equipped it with fundamental knowledge about its world.

The philosophical, the vocational and the general educational planes converge to indicate that there exists an important knowledge gap that needs immediate attention, and that can best gain attention through an established disciplinary effort.

If Developmentology is established as a discipline, it not only will produce the scholars, the teachers, the courses and teaching materials and the students, both general and vocational, but its presence among other disciplines will have a wider effect of bringing a more global orientation to the balance of school and college curricula. Such is the pattern of interaction between disciplines; sociology, for example, in addition to its own teaching, has influenced the teaching of law, business, economics, political science and many other fields.

Without disciplinary recognition and status, global development is not apt to achieve much educational impact. Developmentology addresses itself to the totally serious study of man's rational existence, in the only habitable planet known to him. Such study requires

scholarship, concentration and intellectual dedication, at least equal to any other discipline with similar conviction of essentiality. Developmentologists would be wrong if they claimed that their's was a superior calling, but they would be equally wrong in acquiesing to a sub-order of academic thrust.

## Conclusion

The Institute believes that the hard road toward a discipline is the preferred road to travel. It is convinced that young people, already born, must be taught about their planetary home, about their own specie which inhabits this home, about the staggering inequalities and imbalances which presently exist in the home that they are inheriting and must share, about the dangers of decisions and actions based on ignorance of their consequences to the specie and the habitat, and about human values that must transcend material values and must govern secular wants.

It is time that man learns about man, on this Earth.

Wilmer H. Kingsford
President

January, 1971

Management Institute for National Development

230 Park Avenue
New York, New York 10017
(212) 889-5847
Cable: Institute, New York

# DEVELOPMENTOLOGY

## THE STUDY OF GLOBAL SYSTEMS AND HUMAN DEVELOPMENT

### An Evaluation

A year ago, in a paper entitled "The Case for Developmentology", this Institute put forward the argument that schools and colleges in the favored nations and particularly in the United States should greatly strengthen the teaching of human development in a global context. The vast majority of young people pass through their years of formal education and enter adult life minimally knowledgeable about the planet on which they live and about the human race of which they form a part. Yet both planetary and human forces inevitably will affect the lives of even the most favored groups, and decisions of incalculable significance to the future of mankind and his planetary home will have to be taken in the immediate years ahead. These decisions will be more wisely arrived at if based on informed, rational judgment than if only ignorance and emotion are the controlling factors.

The full argument of this text and of that contained in the first sequel, "Developmentology-- Phase II"; will not be repeated here, as this paper is designed as a progress report for those who already are familiar with the conceptual presentations. New readers are invited to request copies of the former papers.

In this report, the most frequently expressed suggestions and criticisms from a growing list of respondents are discussed, together with further efforts of the Institute to move from concepts to course offerings. Were this work susceptible to precise timing, the third paper would move, logically and efficiently, into Phase III - Implementation. There are, in fact, a number of schools,

school systems, departments and university colleges currently at work on course methodology and curriculum planning for inclusion of studies on global development, but it would be premature to discuss these projects at this time. It is believed that the Institute can render service of greater value by pausing to discuss problem areas than by attempting to push too rapidly into implementation.

Three preliminary comments are required. Requests for further reading have been received. The most authoritative U.S. publication on the state of international studies is Bridges to Understanding: International Programs of American Colleges and Universities by Irwin T. Sanders and Jennifer C. Ward, (sponsored by The Carnegie Commission on Higher Education and published by McGraw-Hill Book Co., 1970). Anyone interested in further reading on this subject is advised to obtain this well documented book, whose interpretive chapters in particular are exceptionally valuable.

It has been pointed out that while the Institute argues for global understanding, its own papers have a peculiarly American ring. That is true; U.S. schools and colleges are the primary concern of this work, and the papers are written for American readership and with the U.S. educational system in mind. It would be splendid if comparable work in more nations and societies paralleled or moved in advance of the U.S. effort (Great Britain and Canada are acknowledged leaders in development studies) and the Institute counts among its respondents international organizations and national bodies concerned with education. There is nothing exclusively American in this effort, but as an American organization with finite resources, the Institute is bound to start at its doorstep and not attempt a multi-national thrust on its own.

Finally, a word about the unloved and unloveable word, "developmentology". Nothing praiseworthy can be noted in its behalf, except that, to date, no substitute has emerged that denotes more precisely what everyone means to say, and that can apply with ease to the practitioner as well as to the subject. A long form sub-heading is offered: The Study of Global Systems and Human Development, even though the initials, SGSHD, spell nothing and are unpronounceable. In good time a better word will emerge from some language; until then developmentology will be used in this work with a request for reader forbearance.

The Disciplinary Approach

In its traditional sense a discipline has meant a broad area of generally related knowledge that can be logically assembled and

intellectually pursued, although never fully mastered. Disciplines evolved when man found knowledge as a unity too vast and amorphous to absorb without some compartmentalization; thus emerged the major divisions of the arts and sciences, and within each more clearly identified areas of concentration: philosophy, classics, literature, history on one side and mathematics, physics, chemistry and biology on the other. With time other disciplines were added, borrowing parts of senior knowledge areas and reformulating these parts into new unities of concentration, such as geography, economics, sociology, anthropology, political science on the "arts" side and an equivalent growth on the "science" side. Despite the numerical increase, the traditional definition prevailed and does today, in part.

When developmentology is advanced as a discipline, it is within this traditional interpretation: a broad area of generally related knowledge that can be logically assembled and intellectually pursued, although never fully mastered. Such disciplines inherently are interdisciplinary. History, for example, includes significant elements of philosophy, economics, political science, the natural sciences, the fine arts, etc. There is an essential interdependence among all macro-disciplines, which reinforces, rather than compromises, their disciplinary integrity.

In more recent years and especially during the past decade or two, there has been an explosive fractionalization of knowledge, even among the traditional macro-disciplines (anthropology alone is said to have over twenty sub-disciplinary segments). Initially these sub-sections were referred to as specializations, but they in turn claimed for themselves the word discipline. It is an entirely different interpretation of the word: micro-disciplines are narrow areas of specifically related knowledge that can be mastered in the sense that a trade can be mastered.

It was never intended that developmentology should fall prey to micro-disciplinary interpretation, but previous papers frankly were careless on this matter, leading many to protest vehemently that at minimum developmentology must be interdisciplinary, that it would be fatal to insist that a topic so vast should be forced into the sub-system mold. The younger the respondent the more strongly was this point emphasized, some recent graduates citing their own agonizing experiences in attempting to break out of disciplinary pressures. Others argued that all disciplines are dying and therefore it is ridiculous at this late stage to propose a new discipline.

It is suggested that the problem is not with a disciplinary organization of knowledge per se but with excess zeal that finally has aborted the traditional definition, and has caused the current rejection mood. Knowledge does have to be reduced to some forms

of manageable, digestable elements; one cannot go to school for twelve, sixteen or more years and just study everything with no rationale or sequence or method, and even if this could be done as a sort of free association continuum (or endless bull session) at least the teachers and professors would be expected to know more about one subject than another.

When one examines the educational structures through which knowledge is transmitted to majorities of students, the disciplinary department unquestionably is the predominant structure. At the school level all required courses and most electives are structured on departmental lines, and the same characteristics apply at undergraduate colleges. It is only at advanced levels engaging small minorities that other structural forms (centers, institutes, committees, etc.) become significant to the learning process.

If developmentology is to gain entry into educational institutions handling student majorities, it must be structured along familiar departmental lines. The only other alternative, suggested by some, is to successfully convince all the other departments to teach their subjects in global and developmental terms, thus making a new discipline redundant. Such an attempt would be herculean, would encounter massive resistance (some of it quite justified) and even if eventually successful which is very doubtful, would not create a core of educators whose primary interest would be addressed to the advancement of knowledge on global human development.

The single, most striking factor to emerge from the study of educational efforts in development topics over the past decade is that there has been almost no water-shed effect from the doctoral level down through the educational system. This failure, which is tragic, is in very large part due to neglect for the required structures through which knowledge is spread. All sorts of other devices have been tried--conferences, seminars, workshops, committees, centers, institutes, commissions, published papers, faculty exchanges, student exchanges, year abroad programs, international clubs, voluntary campaigns--everything in fact except for the one structure universally used to transmit and spread knowledge: the disciplinary department. To hope that somehow all other disciplinary departments will become impacted globally and developmentally without the strengths of a global development department is to perpetuate a ten-year old error.

These are strong words, and not all readers will share the Institute's position. The Institute has no vested interest in an as yet unborn discipline, and if other structures can be shown to hold promise of as great or greater effectiveness in teaching

student majorities about their planetary home, their own specie and the critical interrelation between the two, such structures certainly should be encouraged. All that can be said is that such alternates have not emerged while the familiar structure has not been tried.

Teaching Methodology and Research

A considerable number of respondents indicated that their institutions were quite prepared to accept the developmentology thesis and willing to install appropriate courses, but would need assistance in course methodology, curriculum content, teaching materials and teacher orientation. In response, the Institute has attempted to identify sources for such academic support, and in doing so has experienced considerable difficulty. Not only is there a dearth of teaching aids and guides supportive to all forms of development studies, in addition there appear to be very few institutions which consider it to be their responsibility to service this educational need. The Institute assumed that if the concepts and structures were sketched in and if schools and colleges were prepared to install learning opportunities, appropriate research centers, schools of education, scholarly associations and similar bodies could be relied upon to fill the need. Such has not been the case. Thus the burden of teaching methodology has fallen upon the dedicated shoulders of a remarkable group of innovators who had not thought of themselves as curriculum professionals, but nevertheless are responding to a need. Many of them are young, some are still students themselves, and their institutional affiliations are not what one would normally expect: foundations, religiously affiliated organizations, voluntary agencies and other non-profit institutions, together with colleges and high schools not always listed as among the most prestigeous or most lavishly endowed.

The result has been two-fold. On the one hand, some quite fine course units have been developed and are being used. On the other hand, the developers of these units are the first to acknowledge that a vast amount of work remains to be done, work that requires considerably greater resources, both human and financial.

A major impediment to accelerated curriculum development is insufficient research, particularly research in form and content adaptable to course planning at the school and college level. One respondent commented persuasively that there exists close to a quarter century's accumulation of specialized research and practical experience among development economists, sociologists and

political scientists, and that certainly by now at least some general truths, which can be distilled and passed on to the non-specialist, are evident to these scholars. He further argued that developmentology is a disciplinary concept which seeks the interrelationships between processes. One can become expert in two processes (e.g. economics and political science) without fully comprehending their interrelationships; a developmentologist, through disciplined enquiry, would become expert at interrelationships, while relying on experts in other disciplines for detailed knowledge of their fields. Disciplined enquiry would lead to a systems understanding of human dynamics within the planetary ecosystem.

There is danger in moving directly into curriculum planning without sufficient research of the sort just described, for some of the available teaching materials lack intellectual sophistication and tend to lean heavily upon emotional appeal, dubious statistics and, at times, politicized views. The last named is a particular danger; too many enthusiasts approach development problems with preconceived notions and closed minds on the values of competing political and economic national structures. Such attitudes not only are dated but irrelevant to the serious study of global systems and human development.

Yet there is greater danger in a sometimes advanced argument that general level courses should not be offered until much more research is performed. Global problems of massive and accelarating dimension are here now: hunger, sickness, high unemployment, stagnant economic growth, illiteracy, urban migration, environmental hazard and population expansion plague two-thirds of the world, and these exponential curves inevitably will intrude upon the continued ability of the favored societies to formulate policies independent of global forces. In such circumstances it is preferable to become informed, even if imperfectly, than to rest ignorant.

Teachers will have to adjust to the reality that developmentology courses are not available pre-packaged in handy question and answer form; rather such courses will require of both teacher and student an exploratory mind and a certain knowledge that the unknowns outnumber the knowns. Thus oriented, a most stimulating and rewarding learning experience can result.

## Education and Vocation

There are many valid reasons for studying a subject in school or college. Personal pleasure is one reason, and poetry is the example which most quickly comes to mind. Curiosity is another; some knowledge of astronomy may be sought simply to lend a bit of comprehension to a brilliant, starry night. General intelligence is a

third and courses in civics or current events serve to interpret the daily news and topical subjects of discourse. Self-understanding may lead one to study biology, philosophy, theology, psychology or history. Responsible citizenship may provide the stimulus for studying government, law or political science while the desire for travel plays a corresponding role in foreign languages and geography. A special talent might lead to the appreciation of music, art, architecture, mathematics or physics.

The above paragraph includes over a dozen disciplines justified solely as educational ends. They need no further justification, but at the same time they can be justified as means toward chosen adult careers or vocations. If one wants to be a writer, editor or literary critic the study of poetry is adviseable. An aspiring scientist will need to know his field of astronomy, biology, or physics together with a solid grounding in mathematics. Politicians, lawyers, social scientists, artists, clergy, linguists, navigators must know the disciplines appropriate to their chosen professions. Hence, each discipline is both educational and vocational.

These thoughts are expressed in introductory response to respondent questions as to whether developmentology is designed for general education or for specialized careers and if the latter, then for what sort of career opportunities. As a discipline, developmentology should be both. Knowledge of man as a human species within a finite, planetary environment may or may not afford personal pleasure, but it is bound to enlarge one's self-understanding, curiosity and general intelligence, and increasingly such knowledge will become central to responsible citizenship. The natural boundaries (oceans, mountains and sheer distance) separating societies and their problems have gone; the man-made barriers of weaponry, sovereignty and purposeful isolation are going; new societal and transnational patterns are emerging. This is knowledge that should be acquired by all who call themselves educated, whatever their chosen livelihood or other life pursuits. In this sense the study of developmentology is an end in itself.

For those who consider concentrating their studies in areas within the general scope of developmentology, there is, naturally, the question of career opportunities. This question is quite critical for recent graduates and those approaching graduation, who find their hard won knowledge in international affairs, intercultural studies, development studies and related specializations to be in very limited demand. Part of the reason is the general softness in the entire job market reflecting national economic conditions and another part reflects a drastic decline of funds available

to international activities. Since 1967, there has been a 49% decline in federal funding for foreign affairs research, and private foundations have reduced their grants for international activities by 21% since 1969. These sharp declines inevitably cause job reductions among those already employed in international areas, placing the recent graduate at a further disadvantage.

Even under more favorable conditions the absolute number of career opportunities in the public and philanthropic sectors is not very great. The national foreign affairs and aid agencies and the inter-governmental organizations do not have large and rapidly growing manpower requirements, nor do the private foundations and voluntary agencies. Yet these are the sectors to which most graduates apply for careers.

The private sector, and especially its principal components--the largest manufacturing corporations, banks, insurance companies, trade and service enterprises--are becoming transnational at a very considerable rate of speed. For some, international activities account for a larger share of revenues than the domestic division and in almost all cases the rate of growth is higher. As the private sector is the largest employer in any case and as it is the single sector experiencing rapid global growth, career opportunities for those with transnational interests should be significant if not abundant.

But, another problem arises. Private sector employers too often find that international affairs graduates know nothing of immediate corporate usefulness (administration, finance, marketing, production, engineering, personnel, etc.) This drawback is traceable to a singular lack of concern on the part of most international affairs schools for inclusion of business administration courses, either in the central, required curricula or in collaboration with schools of business administration. Meanwhile schools of business administration, while slow, if not lethargic, in adjusting curricula to transnational realities, do graduate men and women who know something of immediate corporate usefulness. Private sector recruitment, therefore, concentrates on the latter, and the corporate employers take upon themselves the required further training for transnational service. Clearly there needs to emerge curricula combining international affairs with business administration.

The third sector offering careers is the educational sector itself (teachers, curriculum developers, researchers, etc.). Its growth is contingent upon the extent and rapidity with which developmentology and related courses are offered in schools and colleges. For so long as such courses are reserved to graduate students

and reach only tiny percentages of student populations, numerous career opportunities will not materialize. But if a genuine career, rather than first job, view is taken, the Institute believes that those qualified to teach in global, developmental terms will be in rising demand as this decade progresses.

Curriculum Balance

The sub-heading used in this paper, Global Systems and Human Development, suggests that developmentology is not a single thing but rather a complex of differing and at times conflicting realities. Some study units concern themselves largely if not entirely with the unifying, centripetal planetary forces, and such studies commonly are known as global systems, or in the vernacular, "Spaceship Earth". The underlying philosophy dates back at least to the One World concepts of Wendall Willkie, the theology is based on the brotherhood of all mankind, the technology rests upon the environmental reality of a planetary ecosystem and the vocational emphasis is focused on the rise of transnational or extra-territorial organizations.

Other study units are built upon the sharply separatist, centrifugal planetary forces, perhaps best described by the phrase, "The Lopsided World". The focus of these studies is on human inequality, the large and growing gap in well-being between the more favored and less favored societies, the gross social injustices that result from the chasm between the have minorities and the have-not majorities and, in more explicit terms, the dimensions of hunger, sickness, illiteracy, joblessness and homelessness.

There is no intended, conceptual antagonism between "Spaceship Earth" and "Lopsided World" thinking; both deal with new planetary realities and both are concerned with institutional structures that either encourage or disrupt the globalization process. Yet sharp conflicts can arise, depending upon whether such forces are thought to be beneficial or harmful. A few examples will serve to clarify this important point.

The transnational corporation is seen by many as the model of "Spaceship Earth" institutions. While intergovernmental organizations have experienced tremendous difficulty in moderating national sovereignties and achieving minimal international cooperation, the private corporation has spread across the face of the earth, coordinates its operations in scores of countries, finances its requirements and employs its personnel wherever the market is most favorable, carries with it new methods, new technologies and new

demands, and in so doing is creating opportunity and wealth where little existed before. It defies national sovereignties, governmental controls, banking systems and legal codes because it has fashioned a global flexibility beyond the abilities of any one nation's constraints.

To others, this same institution is viewed with alarm. Described as neo-colonial or economic imperialist, it marshals enormous technological, financial and organizational strength to overwhelm national and local enterprise, prevents orderly, balanced development, is insensitive to cultural values, lives outside of effective legal control, creates unemployment through capital intensive technology, and concentrates wealth in fewer and fewer hands.

Surely, the truth is somewhere in between. The transnational corporation is neither saint nor sinner, or perhaps it is both. The first necessity is to understand it, much more fully than it is understood at present by either its advocates or its detractors, and the second necessity is to devise ways of maximizing the benefits of transnational corporations for all mankind while minimizing its damaging excesses.

Modern agricultural methods combined with new, hardy seed varieties have created greatly increased yields, particularly in poor countries. This "Green Revolution" is hailed by many as one of the most stunning breakthroughs in the battle against hunger, and one that could not have been better timed to avert an almost certain mass starvation. Nations which had been forced to use scarce earnings to import food now can feed their own populations, often with grain surpluses available for export. An economically viable agricultural industry can lead to rural development, replacing the stagnation of crude peasant farming, and a healthy rural economy is essential to a vigorous industrial economy. The "Green Revolution" is another example of "Spaceship Earth" dynamics.

But this, too, is not one-sided. The peasant may have been grossly inefficient in productivity standards, but he did have the ability to feed his family and himself. Driven off the land by the requirements of modern methods, peasants by the thousand drift to the crowded cities and without skills find no urban employment. The land produces bumper crops, but those who need the produce have no means of purchasing it and have lost the ability to feed themselves. The large landholders and agricultural industries profit while masses in the teeming cities starve. And so the "Lopsided World" becomes more lopsided.

Here again, a middle way is essential and can be devised once the full implications of the "Green Revolution" are understood, and then structured to benefit all mankind.

Other sharply etched contrasts, supporting compelling arguments on each side but lacking full comprehension and therefore wise policy formulation include the apparent need for rapid economic growth in the poor countries in relation to the dangerous rise in environmental pollutants resulting from such growth, and the cause and effect interrelationship between population growth and per capita income.

If mankind is indeed on a spaceship, his is a tumbling voyage, seemingly out of control and capable of self-destruction. However, the journey need not be mindless nor charted by those who leap to over-simplified, polarized conclusions. A measure of humility and open-mindedness, combined with serious study, can lead toward a somewhat smoother flight.

It is possible to visualize developmentology as a course of studies containing four principal segments:

- Global systems: Their historical development, current thrusts and probable future directions, the interaction between natural and man-made systems, ownership and control questions related to the latter, the beneficial and harmful aspects of systems use, their impact on traditional forms of sovereignty and new concepts of managing systems to serve mankind.

- Human development: The history of biological, geographical and economic dissimilarities, the present disparities of well-being and their causes, present and future requirements to modify gross inequalities, the present institutions addressed to development issues and their possible modification.

- Interculture studies: Appreciation of human values as differently expressed in civilizations and societies, the religions, philosophies, mores and intellectual achievements, the anthropological and sociological interpretation of cultures, including recognition of one's own heritage, both as one sees himself and as others see him.

- Planetary synthesis: The interactions of systems, development and cultures, their areas of mutual support and of friction, their modification or restructure to achieve better balance, the political, economic and social implications of restructuring global institutions.

The first three segments involve factual knowledge and move from hard knowledge (statistics, economics, science) to soft knowledge (cultures, social sciences). The fourth is problem-solving in orientation. Depending upon the student age level, and degree

of concentration sought, the four segments can encompass one academic year, or, preferably, two years at secondary school level, while at college an introductory unit can be offered in freshman year, combined with a four-year concentration.

The order of the first three segments is not of critical importance, but it is considered critical that the problem-solving segment not be attempted until the student is well versed in factual knowledge. Too often the reverse is the case, leading to conclusions that either are culturally insensitive, contrary to systems dynamics or philosophically unacceptable.

Respondents will perceive that, in suggesting the above curriculum guideline, the Institute is seeking to encourage experimentation, in order to bridge the gap between conceptual endorsement as to what should occur and slow progress as to what in fact is occurring. The hardest step is the first one: once courses are designed and actually taught, experience will greatly assist further work in curriculum planning.

To that end the Institute will direct its ongoing work.

Wilmer H. Kingsford
President

June, 1971

## NOTES

Single copy mailings of this report include 121 individuals who responded substantively to the earlier papers (exclusive of simple acknowledgements). Of the total, 50 are educators (presidents, deans, professors, teachers), 8 are with educational associations, 14 with governmental and intergovernmental organizations, 29 with voluntary agencies, 6 with corporations and 14 with foundations and other institutions. Mailing addresses are three quarters domestic, one quarter foreign. In addition, multiple copies have been sent to requesting institutions for their further distribution.

* * * * * * * *

The Homeland Foundation, through research grants to the Institute, has made possible this continued work, for which appreciation is expressed by the entire staff.

Management Institute for National Development

230 Park Avenue
New York, New York 10017
(212) 889-5847
Cable: Institute, New York

# DEVELOPMENTOLOGY : PATHS TOWARD IMPLEMENTATION

Fourth of a series of papers
concerned with the study of
global systems and human development

Part way through the score of Jesus Christ Superstar, Mary Magdalene plaintively shouts her feelings of confusion, frustration and uncertainty in four electric words, " What's It All About ? "

The growing numbers of people involved in puzzling through the incredibly complex problem of translating global concerns into educational content can sympathize with this question; they ask it of themselves countless times. How does one teach about the human specie on its planetary home, about the appalling imbalances in the well-being of different societies, about globalization processes, population trends, intercultural understanding, conflict resolution, environmental protection and many more new concepts? Surely they are realities, vital realities of rapidly growing significance, and their comprehension by students is essential, for however significant these planetary realities are judged today, they will be of far greater significance in the immediate years ahead. Yet, as was questioned in the second paper of this series, how does a generation with one mind-set teach another generation to have a different mind-set? How does one develop, not just intellectual understanding, but a sense of emotional belonging to Earth and its people, as an overriding loyalty compared with the familiar allegiences of nationality, culture, race, ethnic identity and religious persuasion? What is it all about?

Compounding the difficulty is a peculiarly American attitude toward problems. A distinctive American genius is problem-solving, and there is deep-seated conviction that any problem, whatever its complexity, can be solved to near-perfection; it simply is a matter of time, talent, money and facilities brought together on a high priority basis. It may take a decade and thirty billion dollars to land men on the moon, but land they do, on schedule, with numbing accuracy. It may require several years and several billions to find a cure for cancer, or eliminate auto emissions, or provide opportunity for minorities, but the chances are good that these problems will be solved.

The American approach toward education reflects this confidence: get the brightest professors, support them with generous research budgets, encourage them to design and implement graduate programs and in a fairly short time any intellectual puzzle will be solved. A new science will be created with impeccable credentials, and a new cadre of specialists will be available.

While many salutory things can be said in favor of this attitude, it has its Achilles' heel. Interpersonal relations, even in a small community, do not always occur in predictable patterns, and global human development is simply an extension of community relations. Frustrated by the enormity of the planetary dimension and the unpredictability of Earth's peoples, the temptation is strong to withdraw within one's own society, where problems can be solved or at least reduced to manageable proportion.

Yet, there are many who reject a defeatist attitude. However imperfect may be the attempts at interpreting global systems and human development as a general educational requirement, many thoughtful groups, associations and organizations are trying to piece together the essential components. In this paper the Institute, following on from the concluding pages of the third paper, focuses on content, or at least a rationale of content.

The following pages are not intended as a statement of absolute, unchallengeable doctrine, but rather as one approach toward a rational ordering of parts. If a reader wishes to recast the components in other fashions, it would be welcome, for there exists no perfect way of teaching about the planet and its people. There does exist a conviction that attempts are well worth trying; indeed they are essential.

Curriculum Components

A law of physics is that for every action there is an equal and opposite reaction. In individual and societal human relations, the same law would appear to apply, with the modification that the reaction may not be equal to the action. At times, a strong action appears to cause much less reaction than one would expect, such as the meager and tardy relief efforts following the disastrous Bay of Bengal cyclone in 1970, while at other times there is an over-reaction - the U.S. response to civil war in Viet Nam might be cited.

The same physical law applies in the field of education. For every global force of significance there occurs an intellectual search for understanding, which evolves into an organized educational response. Not infrequently the response is painfully slow to come about and even slower to permeate the classrooms and lecture halls of learning institutions. Sometimes the response is remarkably rapid; notably the science and mathematics curricula revisions following the orbiting of Sputnik by the Soviet Union. Occasionally education overreacts, or reacts prematurely: some Black Studies programs following campus disturbances were more in the nature of academic window-dressing than valid intellectual response.

Despite these hazards, developmentology can be thought of as an educational response to global forces. The following table lists some of the more significant global forces on the left and corresponding intellectual reactions or responses on the right.

| | | |
|---|---|---|
| Pollution | ⟷ | Ecology |
| Over-population | ⟷ | Family Planning |
| War and Revolution | ⟷ | War/Peace Studies |
| Urban Migration | ⟷ | Urban Studies |
| Malnutrition | ⟷ | Green Revolution |
| Racial Prejudice | ⟷ | Ethnic Studies |
| Cultural Prejudice | ⟷ | Intercultural Studies |
| Poverty | ⟷ | Development Studies |
| Global Interdependence | ⟷ | Trans-national Organs |
| National Power Conflict | ⟷ | International Affairs |
| Equality Gap | ⟷ | Justice Philosophy |

Additional forces and responses may be added: the technological era, for example, and the several efforts to correlate scientific advances with human needs.

Such a lineal listing has the defect of implying that each force-response equation is an entity of its own, unassociated with the others, but this clearly is not the case. Therefore, the reader is asked to imagine a wheel, the rim of which represents the planet with its human population. The lines then become the spokes of the wheel, carrying humanity's pressures and problems inward and the corresponding responses outward to support the rim. In such fashion, one can comprehend a unity within the listing.

The simplest wheel to imagine is the traditional wagon wheel, with each spoke spaced equidistant from the next in radial symmetry. However, such a design does not emphasize the interrelationships of the spokes, not only in common support of the rim, but to each other. The construction of the bicycle wheel, with its intersecting spokes, is a more appropriate model. Each spoke interfaces with three others on its anchorage, and passes an additional three of the complementary anchorage, before reaching the rim. With thirty-two spokes to a wheel, the total is some 288 cross-overs, and yet the result is a unity of strength and purpose. In similar fashion, global comprehension must include multiple cross-overs of specific knowledge areas, each intrinsic to itself but interdependent with the others.

The third structural segment of every wheel, without which it cannot function, is the hub. The hub serves to anchor the spokes in a common core, so that they may carry the stresses in from the rim and the required strengths back out to the rim. A wheel without a hub is unserviceable; it is just a collection of random spokes incapable of supporting the rim.

And that is precisely where the intellectual ferment surrounding global development studies finds itself today: a large and growing number of new and experimental knowledge areas which have not been anchored into a central unity, and so are disappointingly weak and fragile.

When the Institute argues for the establishment of a discipline in developmentology it is not suggesting the addition of one more spoke, but rather for a disciplined approach toward marshalling the multiple aspects of global pressures and their intellectual responses. If achieved, the resulting unity and strength would benefit each of the members, individually and as each relates to the others. In combination, balance, and effectiveness, the planet and its human specie would be better served.

Developmentology would not guarantee peace and prosperity for all, for all time. Man would still have the capacity to destroy himself, his fellow man, and his environment, through global savagery

and violence or through subtler but equally destructive instruments of oppression and exploitation.

However, with understanding, mankind's options for structuring a more just and prosperous global community are greatly enhanced, as the consequences of destructive forces are better comprehended. Every wheel, no matter how strongly built, can be smashed; that does not argue against the invention of the wheel.

Curriculum components of developmentology, then, are the identifiable forces of mounting global concern and their several educational responses, conceived and organized in a way which will correlate the forces and responses. If the bicycle wheel schematic model serves a useful purpose (recognizing that no analogy can be pushed too far), then its physical presence may prove to be a quite intriguing introductory teaching aid.

Curriculum Planning

It is difficult to suggest a curriculum plan unrelated to the individualities of particular educational institutions. No single plan can hope to reflect the many variables existing in institutional objectives and resources, faculty strengths, complementary courses offered in international fields, student interest and preparation. Duration, intensity, and sophistication are additional variables, and the danger of suggesting a plan is that each reader in turn will conclude that while the plan may be of interest to others, it is not appropriate to his particular circumstances.

Even if this were not the case, the theoretical plan would be in trouble. The teaching of global development is so new and experimental that there is no supportive justification for promoting one plan in preference to any other, nor assurance gained from experience that one approach is more effective. However, no useful purpose is served by becoming paralyzed in self-doubt, and a proposed plan can at minimum serve as a focus for discussion.

Whether or not the bicycle wheel analogy is used in the first, introductory hours, developmentology should instantly capitalize upon the desire for relevancy. This can be done with remarkable ease, for hardly a week passes without mass media headlines drawing attention to some "crisis" that is comprehensible only in the global context. There exist and will continue to exist an endless series of examples; cited here is just one currently at the forefront: the international monetary crisis.

Money is directly meaningful to every American in terms of prices and wages, imports and exports, travel budgets, interest rates, and financial security. Why is there a crisis about the dollar's worth -

isn't America the world's richest country and if so, shouldn't its currency be the most highly sought? There is no way of understanding this problem other than in global terms. America is indeed the richest country and so American currency is valued, but the globalization of trade, commerce, banking and investment is so strong that no national currency can serve as a trans-national medium of exchange. There is no international currency, because no nation is prepared to surrender sufficient sovereignty to accredit a world currency. But neither is any nation sufficiently powerful to force world acceptability of one national currency. The result is a seemingly endless series of monetary crises: of the British pound, the French franc, the German mark, the American dollar, the Japanese yen. Taking drastic, short-term measures, any one nation temporarily can shore up its currency vis-a-vis international exchange rates, but at the price of forcing other currencies to adjust to their several, national sovereignity allegiences. That which is really happening is the erosion of national sovereign currencies through globalization pressures. As usual, the weakest suffer most and in vast areas of the world, so-called soft currencies are becoming less valued while the hard currencies battle for position within a failure syndrome.

Meanwhile, as if it were a game of Monopoly, funny money is being created: Eurodollars which are neither European currencies nor dollars but a little of both, paper gold, SDR's and, to an increasing extent, very old fashioned bartering (so many tons of sugar for so many tons of oil; so many tons of wheat for so many tons of chrome ore).

Eventually, some combination of currency substitutes will replace national currencies and their exchange rates; global fiscal sovereignty will be forced upon national fiscal sovereignties. If this will happen anyway, would it not be more enlightened to work positively toward a global currency?

To an economist, the foregoing comments must sound horrifyingly naive, simplistic and possibly dangerous. But, along with this quick, shallow dive, students can be made aware that if they are intrigued with the subject, a whole life-time career is available; if not intrigued, at least they should understand what is happening to the money in their pocket-books and wallets.

Similar headline topics can equally serve to underscore the immediacy of global development knowledge. Given one example, students should be asked to identify and explain, at least to some degree, other topics drawn from social, commercial, political and scientific events, as well as economic. Current examples could include the control of addictive drugs, the pricing of crude oil and petroleum products, the

India-Pakistan hostilities and space technology, all of which are comprehensible only in a global context.

Following this immersion period, the curriculum should include a segment on historical perspective. While history is not the "in" subject these days, that which happened yesterday is intimately relevant to that which is happening today, and no serious comprehension of global forces can occur unless the student is prepared to seek the origins of these forces. As Marvin Bressler, Chairman of Princeton's Commission on the Future of the College, observed, "There is more in space and time than in the thought-ways of the United States in the second half of the twentieth century."

Most history courses are taught chronologically and students, with considerable justification, wonder why they are asked to learn about the rise and fall of ancient fiefdoms, or the fortunes and misfortunes of kings and queens. However, if history is taught in reverse chronology, tracing the historical roots of present day dilemmas, then it comes into intellectual focus.

For example, the special problems of many developing nations are linked to their one- or two-product economies, which were developed as integral parts of imperial systems. As parts of a system, supported by common banking and currency, and access to investment capital and to protected markets, they had an economic rationale. The imperial systems were developed as a way of providing required raw materials for industrial development. In turn, industrialization followed the era of scientific invention. The scientific breakthrough followed the age of global discovery and exploration, which exploded geographic myths and greatly stimulated intellectual curiosity.

Viewed in this sequence of reverse chronology, one gains a much more rational and balanced understanding of one-product economies, than if one is exposed only to the current rhetoric of oppression and exploitation. No one planted cocoa plants in West Africa in order to oppress the Ghanaians, nor dug for copper in the Andes in order to subjugate the Chileans, even though the resulting dependence of the Ghanaian and Chilean economies on cocoa and copper greatly impedes national development. Furthermore, the simple act of resource expropriation and nationalization does nothing to change global pressures on single product economies.

Again, students should be asked to choose a global force and trace its historical roots, not necessarily to become historians, but at least to gain perspective and avoid simplistic conclusions.

The third section, which moves into the main course content, is formed of two quite distinct, yet interrelated, parts. One part essentially

is cognitive and analytical while the second is largely interpretive and deductive.

In part one, the curriculum should return to the bicycle wheel spokes in order to give students an over-view grasp of the multiple global forces, the multiple educational responses, and the critical inter-relationships. Experts in the several areas can be invited to discuss their work, giving students insights on the inherent conflicts between ecology and economic development, cultural values and agri-cultural modernization, equality and trade patterns, etc. This section may be considered as learning the language of developmentology, and should include learning the arithmetic of globalization: the facts about the planet, its resources, the human population, its consumption of resources and the statistical imbalances.

Part two should focus on ethnic and cultural dissimilarities. All people should be consciously aware that their patterns of thought and action are intimately related to their own cultural orientation. That which an American, with all possible sincerity, may judge to be a good thing to do and a right course to follow when addressing global issues may not be judged good and right by an equally sincere non-American. If so, and if the American solution affects the non-American's society, the right becomes wrong and the good results in bad. The development of global intercultural awareness is possibly the most difficult educational undertaking imaginable. The cultural orientation of each society so thoroughly permeates that society that there is virtually nothing which can be labelled as culturally neutral.

Probably a culturally neutral person, if he could be created, would be a disaster, for man needs allegiences and ways of identifying himself as belonging to something other than himself. The challenge is to combine a healthy recognition of one's own cultural identity with a similarly healthy humility toward other ways and other paths of being human.

The final curriculum section should be problem-oriented. Given relevance, historical balance, linguistic, arithmetical and scholarly facts, and cultural recognition, global thrusts and counter-thrusts must be addressed. A problem can be ignored, or it can be misinterpreted, or it can be well understood, but whatever the approach, it remains a problem. Problems simply do not go away by ignoring them, nor by erroneous diagnosis, nor by correct diagnosis and lack of attention. If one agrees that the human specie on the planet has problems of utmost seriousness, then one cannot avoid the conclusion that these problems cry for understanding and attention. No member of the specie, however fortuitous his individual birth, can hope to isolate himself, for he is an occupant of a troubled, shrinking planet.

How does problem solving take place? There exist no easy answers. Purposeful ignorance is not one. Neither is escapism, nor depression, nor ritualism, nor ideological fault-finding. The keys lie in a collection of such orientational vocabulary as awareness, recognition, learning, motivation, challenge, dedication and, above all, patience and humility.

Seldom has there been a greater educational challenge, nor a more needed response. Program implementation will be imperfect, but as experience is gained and evaluated, better methods will result.

The time to start is now.

Wilmer H. Kingsford
President

January 1972

## Addenda

In any long range project such as this undertaking by the Institute, many byways, items of tangential interest, and meaningful curiosities are encountered. Such bits and pieces seldom find their ways into the text of a paper, but nevertheless they deserve some citation. Following are a few examples from diverse sources.

The late Wendell L. Willkie, Republican presidential candidate in 1940, an international statesman and author, wrote in 1944:

> There have been sharp divisions concerning the extent to which it is desirable for the United States to maintain and develop relations with other nations. But surely the long debate has made plain that American policy cannot be separated into two unrelated compartments, one labelled foreign policy and one domestic policy. The two areas of action are inseparable; what happens in either immediately affects the other.
>
> We are not living in several worlds. Our small American farms, our huge American factories, have close bonds with what is produced in the Andes and the hills of Szechuan, with the complex trade mechanism of London, with the cargoes that sail from Bombay and Oslo and Melbourne. Whatever we do at home constitutes foreign policy. And whatever we do abroad constitutes domestic policy. This is the great new political fact.
>
> Furthermore we have learned conclusively that in the modern world the United States cannot survive militarily, economically or politically without close and continuing cooperation with the other nations of the world.

Nearly three decades later, we Americans do not seem to have learned the great new political fact, certainly not conclusively, and the sharp divisions continue.

*

In 1930, Sigmund Freud was asked whether his early writings on psychoanalysis, dating back to 1905, were in need of revision; possibly a whole new book was in order. Freud replied:

> That will be for others to do. In developing a new science, one has to make its theories vague. You cannot make things clear-cut. But when you write, the public demands that you make things definite, else they think that you do not know what you are saying.

> Now in the matter of my papers on technique, I feel that they are entirely inadequate. I do not believe that one can give the methods of technique through papers. It must be done by personal teaching. Of course, beginners probably need something to start with. Otherwise they would have nothing to go on. But, if they follow the directions conscientiously, they will soon find themselves in trouble. They must learn to develop their own technique.

There is a feeling of kinship by the Institute staff for these thoughts of Dr. Freud.

*

At the end of World War I a young Englishman, Clifford Bax, wrote three verses which were a moving reflection on the carnage of that conflict. Set to music by Gustav Holst, the verses have become a familiar anthem and hymn.

> Turn back, O man, forswear thy foolish ways.
> Old now is earth, and none may count her days,
> Yet thou, her child, whose head is crowned with flame,
> Still wilt not hear thy inner God proclaim
> Turn back, O man, forswear thy foolish ways!
>
> Earth might be fair and all men glad and wise,
> Age after age their tragic empires rise,
> Built while they dream and in that dreaming weep:
> Would man but wake from out his haunted sleep,
> Earth might be fair and all men glad and wise.
>
> Earth shall be fair and all her people one,
> Nor till that hour shall God's whole will be done.
> Now, even now, once more from earth to sky
> Peals forth in joy man's old undaunted cry:
> Earth shall be fair, and all her folk be one.

One wonders how many million voices have sung these words for over half a century, seemingly without comprehending their meaning. The global village peals forth, but tragic empires continue to rise.

*

Elizabeth O'Neill wrote a charming History of England for children in 1912. In the proper style of all histories, it starts at the beginning ("A long time after the days of the little men and the big beasts there were some people called the Britons, who were not quite wild and savage...") and traces the highlights of British history up to the coronation of King George V. The last two entries read:

THE MEN WHO GO THROUGH THE AIR

Now people can not only go quickly over the sea in ships, and over the land in trains, but quite lately some very clever men have found out how to go quickly through the air. They sail right up into the air in things called aeroplanes. The airmen are very brave, because there are often accidents. They do not know yet how to manage aeroplanes as well as they do ships and trains. Once, not so long ago, some people got an airman to carry letters with him from a place in London to a place called Windsor. Perhaps some day the aeroplanes will be used for this and other useful things.

KING GEORGE AND THE INDIAN PRINCES

One of the biggest countries which belongs to England is India. It is very hot, and poor English people do not go out there, but just a few English people who help to rule the country. There are a great many Indian princes. A short time ago King George and Queen Mary went out to India, and the Indian princes went and bowed down before them to do them honour. Some of them brought presents, and it was a very fine sight. The king and queen wish India to be happy, and all the other lands they rule too.

So much for the futurists at the start of this century: technologically accurate but politically naive. Today's futurists may not fare any better.

* * * *

The invaluable support of The Homeland Foundation is acknowledged with gratitude. The Institute welcomes inquires and will assist others to the extent of its capabilities.